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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/529,782	03/30/2005	Rainer Dyllick-Brenzinger	268090US0PCT	1490
22850 7590 08/05/2008 OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER WOODWARD, ANA LUCRECIA	
			ART UNIT	PAPER NUMBER
			1796	
			NOTIFICATION DATE	DELIVERY MODE
			08/05/2008	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	Application No. 10/529,782	Applicant(s) DYLLICK-BREZNINGER, RAINER	
	Examiner Ana L. Woodward	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17 December 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-28 and 30 is/are pending in the application.
- 4a) Of the above claim(s) 30 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/ are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Newly submitted claim 30 is directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: it is directed to a method of using the product of claim 1 and would have been restricted if originally presented.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claim 30 is withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

### ***Claim Rejections - 35 USC § 112***

2. Claims 1- 28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 1 and 13, it is unclear as to what is meant by “miniemulsion” polymerization.

In claims 1 and 13, it is unclear as to whether “monomers” means more than one type of hydrophobic monomer is being polymerized. The confusion arises because dependent claims 2 and 14 do not require more than one hydrophobic monomer as evidenced by the terminology "at least one".

In claims 2 and 14, line 6, it is unclear as to what is meant by “a surface-active agent”.

In claims 2 and 14, line 10, it is unclear as to whether “monomers” means more than one type of monomer; this conflicts with the antecedently recited “at least one” terminology.

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In claim 3, there is no express antecedent basis for “the organic phase” or “the aqueous phase”.

In claims 4-9 and 15-22, there is no express antecedent basis for “the organic phase”.

In claims 4 and 15, it is unclear if or how the “nonpolymerizable hydrophobic compound” distinguishes over the alkyl diketene component of the composition.

In claims 5 and 16, it is unclear if or how the “water-soluble monomer” distinguishes over the hydrophobic monomer of the composition.

In claim 5, the recited Markush group format is improper.

In claims 6 and 17, line 3, it is unclear as to what is meant by a “binary or polynary” mixture.

In claims 6 and 17, it is unclear as to whether or not the “which comprises” limitation is qualifying only the antecedently recited “dispersion” and not also the recited “solution” and “binary or polynary mixture”.

In claims 6 and 17, the Markush group defining the monomer is improper in format as per the absence of “selected from”.

In claim 6, lines 9-12, it is unclear as to whether or not “at least one” is qualifying all the recited materials and not just the “hydrocarbon”. Do applicants intend these materials as alternatives of each other?

In claim 6, no distinction can be seen between the esters of monoethylenically unsaturated carboxylic acids and the C12-C22 alkyl acrylates.

In claim 6, no distinction can be seen between a vinyl ester of C12 to C18 carboxylic acids per lines 7 and 10.

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In claim 6, last line, "or a mixture thereof" appears to be redundant given the "at least one" terminology.

In claim 10, penultimate line, "maleic maleic" is queried.

In claim 12, it is unclear as to whether both the miniemulsion and the aqueous solution contain the polysaccharide component.

In claim 17, there is no express antecedent basis for a "process" from claim 1.

In claim 19, there is no express antecedent basis for "the nonpolymerizable hydrophobic compound".

In claims 20 and 21, there is no express antecedent basis for "the aqueous phase".

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-6, 13, 15, 17, 19 and 20 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Japanese 4100994 (XP-002268203).

The reference discloses an emulsion dispersion of alkylketene dimer, reading on the presently claimed alkyldiketene, using a dispersant of cationic water-soluble resin obtained by reaction of C12-C22 saturated fatty acid with polyalkylene polyamine. Specifically, it discloses the production of the aqueous emulsion by emulsion polymerization of styrene, reading on the presently claimed hydrophobic monomer, and acrylic monomer, reading on the presently claimed hydrophilic monomer, using the dispersant of the cationic water-soluble resin and treatment by high pressure emulsifier after the emulsion dispersion of the alkylketene dimer by using the dispersant of the obtained cationic water-soluble resin.

The disclosure of the reference meets the requirement of the present claims in terms of the types of materials added.

***Claim Rejections - 35 USC § 103***

6. Claims 8-10, 18, 22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese 4100994 (XP-002268203) described hereinabove.

The selection of a specific alkylketene dimer species would have been obvious to one having ordinary skill in the art from the general disclosure of the reference, absent evidence of unusual or unexpected results.

The reference discloses acrylic monomers meeting the presently claimed hydrophilic monomer. It would have been obvious to one having ordinary skill in the art to employ amounts of said monomer in accordance with the ultimate solubility desired for the resulting polymer.

***Allowable Subject Matter***

7. The previous indicated allowability of claims 13-15 is withdrawn in view of the new rejections set forth hereinabove

*Conclusion*

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ana L. Woodward whose telephone number is (571) 272-1082. The examiner can normally be reached on Monday-Friday (8:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James J. Seidleck can be reached on (571) 272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ana L. Woodward/  
Primary Examiner  
Art Unit 1796